

## Evaluation of Proposals - Contract No. TRN-3681

### Part 1 - Technical Proposal Evaluation - Detailed Sub-Criteria

Sub-Part	Description	Maximum Score	Comment
<b>A &amp; B</b>	<b>Proposed Vehicle</b>	<b>60</b>	Main Criterion
A.1	General Description	80	Sub-criteria to be rated and scored 10 sub-points = 1 Point
A.2	System Requirements	80	
A.4	Carbody and Couplers	30	
A.5	Operator's Cab	30	
A.6	Doors and Bridgeplates	30	
A.7	HVAC and Lighting	30	
A.8	Auxiliary Electric	40	
A.9	Propulsion and Braking	80	
A.10	Trucks	40	
A.11	Communication	40	
A.12	Electronic Controls and Software	40	
A.13	Onboard Energy Storage System	80	
Sub-Total, Sub-Part A & B		600	Total of sub-points
<b>Total Points, Sub-Part A &amp; B</b>		<b>60</b>	Total Points = Total of sub-points / 10
<b>C</b>	<b>Management Approach and Schedule</b>	<b>10</b>	Main Criterion
C.1	Management Approach & Org Charts	40	Sub-criteria to be rated and scored 10 sub-points = 1 Point
C.2	Manufacturing & Test Plans	30	
C.3	Schedule and Schedule Assurance	30	
Sub-Total, Sub-Part C		100	Total of sub-points
<b>Total Points, Sub-Part C</b>		<b>10</b>	Total Points = Total of sub-points / 10
<b>D &amp; D1</b>	<b>System Support Plan</b>	<b>10</b>	Main Criterion
D.1	System Support Plan	50	Sub-criteria to be rated and scored 10 sub-points = 1 Point
D1.1	Onsite Inspection of Assembly Facility	50	
Sub-Total, Sub-Part D & D1		100	Total of sub-points
<b>Total Points, Sub-Part D &amp; D1</b>		<b>10</b>	Total Points = Total of sub-points / 10
<b>E</b>	<b>Qualifications, Experience, and References</b>	<b>10</b>	Main Criterion
E.1	Capacity & Past Performance	50	Sub-criteria to be rated and scored 10 sub-points = 1 Point
E.2	Staff Commitment	20	
E.3	References	30	
Sub-Total, Sub-Part E		100	Total of sub-points
<b>Total Points, Sub-Part E</b>		<b>10</b>	Total Points = Total of sub-points / 10
<b>F</b>	<b>Ability to conform to Buy America</b>	<b>10</b>	Main Criterion
F.1	Plan to meet component cost requirement	70	Sub-criteria to be rated and scored 10 sub-points = 1 Point
F.2	Final Assembly Plan	30	
Sub-Total, Sub-Part F		100	Total of sub-points
<b>Total Points Sub-Part F</b>		<b>10</b>	Total Points = Total of sub-points / 10
<b>Technical Score</b>		<b>100</b>	

Each sub-criterion will be evaluated according to the rating system outlined below:

Rating	Description	Scoring Guideline
Superior	The subsection of the proposal demonstrates an approach that is considered to significantly exceed the RFP requirements/objectives in several beneficial ways (providing advantages, benefits, or added value to the Project), and provides a consistently outstanding level of quality. The subsection of the proposal has significant strengths, and few, if any, minor weaknesses, with very little or no associated risk	90% – 100%
Excellent	The subsection of the proposal demonstrates an approach that is considered to exceed the RFP requirements/objectives in a beneficial way (providing advantages, benefits, or added value to the Project) and offers a very good level of quality. This subsection of the proposal has significant strengths, and only minor weaknesses, with little risk. Strengths/benefits significantly outweigh weaknesses/risks	80% - 90%
Good	The subsection of the proposal demonstrates an approach that is considered to meet the RFP requirements/objectives and offers a good level of quality. This subsection of the proposal has good strengths, and may have some weaknesses and minor associated risk. Strengths/benefits outweigh weaknesses/risks	70% - 80%
Average	The subsection of the proposal is considered acceptable overall, but may be lacking full evidence of meeting the criteria in terms of the basic content and/or amount of information provided for evaluation. The subsection of the proposal contains minor strengths as well as minor weaknesses or deficiencies, and may have some associated risk. Strengths/benefits equal weaknesses/risks	50% - 70%
Below Average	The subsection of the proposal is considered acceptable overall, but may be lacking full evidence of meeting the criteria in terms of the basic content and/or amount of information provided for evaluation. The subsection of the proposal contains minor strengths as well as minor weaknesses or deficiencies, and may have some associated risk. Weaknesses/risks outweigh strengths/benefits.	30% - 50%
Deficient	The subsection of the proposal does not meet some aspects of the RFP requirements, and offers an insufficient level of quality. The subsection of the proposal has major weaknesses or deficiencies, few strengths and substantial associated risk.	< 30%

## Evaluation of BAFO Proposals - Contract No. TRN-3681

### Part 1 - Technical Proposal Evaluation Details

Sub-Part	Description	Maximum Score	Brookville	CAF	Inekon	Comments
<b>A &amp; B</b>	<b>Proposed Vehicle</b>	<b>60</b>	<b>31.3</b>	<b>49.7</b>	<b>35.8</b>	
A.1	General Description	80	42	70	48	
A.2	System Requirements	80	40	70	52	
A.4	Carbody and Couplers	30	22	25	18	
A.5	Operator's Cab	30	20	22	22	
A.6	Doors and Bridgeplates	30	15	25	22	
A.7	HVAC and Lighting	30	20	24	20	
A.8	Auxiliary Electric	40	10	32	28	
A.9	Propulsion and Braking	80	40	64	42	
A.10	Trucks	40	24	31	21	
A.11	Communication	40	24	34	30	
A.12	Electronic Controls and Software	40	20	35	30	
A.13	Onboard Energy Storage System	80	36	65	25	
	Sub-Total, Sub-Part A & B	600	313	497	358	
	<b>Total Points, Sub-Part A &amp; B</b>	<b>60</b>	<b>31.3</b>	<b>49.7</b>	<b>35.8</b>	
<b>C</b>	<b>Management Approach and Schedule</b>	<b>10</b>	<b>7</b>	<b>8.6</b>	<b>5.1</b>	
C.1	Management Approach & Org Charts	40	28	35	20	
C.2	Manufacturing & Test Plans	30	20	26	15	
C.3	Schedule and Schedule Assurance	30	22	25	16	
	Sub-Total, Sub-Part C	100	70	86	51	
	<b>Total Points, Sub-Part C</b>	<b>10</b>	<b>7</b>	<b>8.6</b>	<b>5.1</b>	
<b>D &amp; D1</b>	<b>System Support Plan</b>	<b>10</b>	<b>7.5</b>	<b>8.4</b>	<b>5.2</b>	
D.1	System Support Plan	50	35	44	27	
D1.1	Onsite Inspection of Assembly Facility	50	40	40	25	
	Sub-Total, Sub-Part D & D1	100	75	84	52	
	<b>Total Points, Sub-Part D &amp; D1</b>	<b>10</b>	<b>7.5</b>	<b>8.4</b>	<b>5.2</b>	
<b>E</b>	<b>Qualifications, Experience, and References</b>	<b>10</b>	<b>7.5</b>	<b>7.8</b>	<b>3.9</b>	
E.1	Capacity & Past Performance	50	38	40	15	
E.2	Staff Commitment	20	15	15	12	
E.3	References	30	22	23	12	
	Sub-Total, Sub-Part E	100	75	78	39	
	<b>Total Points, Sub-Part E</b>	<b>10</b>	<b>7.5</b>	<b>7.8</b>	<b>3.9</b>	
<b>F</b>	<b>Ability to conform to Buy America</b>	<b>10</b>	<b>7.7</b>	<b>8.3</b>	<b>5.1</b>	
F.1	Plan to meet component cost requirement	70	55	56	30	
F.2	Final Assembly Plan	30	22	27	21	
	Sub-Total, Sub-Part F	100	77	83	51	
	<b>Total Points Sub-Part F</b>	<b>10</b>	<b>7.7</b>	<b>8.3</b>	<b>5.1</b>	
	<b>Technical Score</b>	<b>100</b>	<b>61</b>	<b>82.8</b>	<b>55.1</b>	

Points	Letter Score																
	Deficient			Below Average			Average			Good			Excellent			Superior	
	0% - 30%			30% - 50%			50% - 70%			70% - 80%			80% - 90%			90% - 100%	
20	0	- 6		6	- 10		10	- 14		14	- 16		16	- 18		18	- 20
30	0	- 9		9	- 15		15	- 21		21	- 24		24	- 27		27	- 30
40	0	- 12		12	- 20		20	- 28		28	- 32		32	- 36		36	- 40
50	0	- 15		15	- 25		25	- 35		35	- 40		40	- 45		45	- 50
80	0	- 24		24	- 40		40	- 56		56	- 64		64	- 72		72	- 80

## Part 2 - Price BAFO Proposal Evaluation Details

Sub-Part	Description	Maximum Score	Brookville	CAF	Inekon
A	Price Score	100	98.9	87.8	100.0
	Proposed Base Contract Price		\$49,923,951.00	\$52,189,395.00	\$49,530,000.00
	Proposed Price for Proposal Evaluation		\$71,629,952.00	\$79,471,752.00	\$70,834,152.00
	Lowest Proposed Price	\$70,834,152.00			
Sub-Total Part 2		100	98.9	87.8	100.0

Lowest Price receives 100 Points. Higher prices pro-rated

## Summary

Part	Description	Maximum Score	Brookville	CAF	Inekon
1	Technical Proposal	100	61	82.8	55.1
2	Price Proposal	100	98.9	87.8	100.0
GRAND TOTAL		200	159.9	170.6	155.1

# Evaluation of BAFOs - RFP No. TRN-3681

Proposer: Brookville

## Technical Proposal Evaluation Details

Sub-Part	Description	Maximum Score	Original Score	BAFO Score	Comments
<b>A &amp; B</b>	<b>Proposed Vehicle</b>	<b>60</b>	<b>30.5</b>	<b>31.3</b>	
A.1	General Description	80	42	42	Low passenger capacity (99@AW2); high car weight; low ceiling height in high floor; longitudinal seating; no end door; dynamic envelope provided, but different parameters than spec. A
A.2	System Requirements	80	40	40	Brake rates in MB & EB still below spec; still no detailed performance simulations( graph!) provided; adequate service proven history (few cars). BA+
A.4	Carbody and Couplers	30	22	22	Carshell: not much details provided; re-design for bridgeplate cutout required; no hinged skirts. Coupler ok. G-
A.5	Operator's Cab	30	20	20	No floor area plan or dimensioned elevation drawings provided; very wide A-pillar (sight issues for operator). A+
A.6	Doors and Bridgeplates	30	15	15	Doors: adequate info provided, good door system. proposer has never used a bridgeplate; requires removal of top plate to manually extend. A
A.7	HVAC and Lighting	30	20	20	Lighting ok; HVAC vendor ok; ducting arrangement unclear; A+
A.8	Auxiliary Electric	40	10	10	No redundant auxiliary power; requires speed restriction if one unit fails. Number of minor non-compliance issues. A-
A.9	Propulsion and Braking	80	40	40	Lacking propulsion system diagnostics; EMI control section largely a repeat of specs, very little information provided; PLC propulsion controller; no split disc; A-
A.10	Trucks	40	24	24	Truck changed to spring suspension, but absolutely no information provided. A
A.11	Communication	40	24	24	Init Passenger Counters provided; AVL unit not as specified, but supposedly compatible. No discussion of wifi capability. A
A.12	Electronic Controls and Software	40	18	20	Still no network topology provided; confusing description of bus arrangement; state that discrete hardwired trainlines will be provided. A-
A.13	Onboard Energy Storage System	80	30	36	Acceleration for loaded car slightly below spec requirements; some info still missing. A
<b>C</b>	<b>Management Approach and Schedule</b>	<b>10</b>	<b>7</b>	<b>7</b>	
C.1	Management Approach & Org Charts	40	28	28	Adequate discussion of management plan; no subs in org chart; very little on methods to assure schedule adherence. A+
C.2	Manufacturing & Test Plans	30	20	20	Not much of a manufacturing plan; test plan generally ok, but many exceptions/waivers requested. A
C.3	Schedule and Schedule Assurance	30	22	22	Better than required time to delivery of first car; no discussion of schedule adherence.G
<b>D &amp; D1</b>	<b>System Support Plan</b>	<b>10</b>	<b>7.5</b>	<b>7.5</b>	
D.1	System Support Plan	50	35	35	Decent QA plan, thin on inspection; very little on incorporation of safety during design; very little on on-site support plan. A+
D1.1	Onsite Inspection of Assembly Facility	50	40	40	Ok description, most work performed at one facility in Pennsylvania. G+
<b>E</b>	<b>Qualifications, Experience, and References</b>	<b>10</b>	<b>7.5</b>	<b>7.5</b>	
E.1	Capacity & Past Performance	50	38	38	Relatively small plant with good history of on-time delivery. No analysis or discussion of capacity provided. G
E.2	Staff Commitment	20	15	15	Key people named, % commitment indicated, but concern re overlap with other projects (Tempe). G
E.3	References	30	22	22	One generally good reference received at time of evaluation. G
<b>F</b>	<b>Ability to conform to Buy America</b>	<b>10</b>	<b>7.7</b>	<b>7.7</b>	
F.1	Plan to meet component cost requirement	70	55	55	Previous audit results show >70%; Component list raises some concerns, indicates high percentage of overseas vendors. G+
F.2	Final Assembly Plan	30	22	22	No detail on final assembly provided, but it appears that all relevant work will be performed in US. G
	<b>Total</b>	<b>100</b>	<b>60.2</b>	<b>61</b>	

Score increased for BAFO

Score decreased for BAFO

## Evaluation of BAFOs - RFP No. TRN-3681

**Proposer:** CAF

### Technical Proposal Evaluation Details

Sub-Part	Description	Maximum Score	Original Score	BAFO Score	Comments
<b>A &amp; B</b>	<b>Proposed Vehicle</b>	<b>60</b>	<b>45.7</b>	<b>49.7</b>	
A.1	General Description	80	67	70	High passenger capacity (120 @ AW2); 100% low floor is a significant benefit; Good weight; Good dynamic envelope info. E+
A.2	System Requirements	80	67	70	Good performance; excellent service proven record (many cars); very good and detailed simulations provided. Updated brake rates. Updated with good OESS performance. E+
A.4	Carbody and Couplers	30	25	25	Superior structure (CEM car); bumper provided to improve crash performance; E-
A.5	Operator's Cab	30	22	22	Detailed info and drawings provided; good layout; good visibility. G
A.6	Doors and Bridgeplates	30	18	25	Door equipment good; good bridgeplate detail provided, supplier gets good references from Boston. G+
A.7	HVAC and Lighting	30	18	24	Good HVAC units; good info on ducting provided, including cab air; floor heat provided. Lighting good. G+
A.8	Auxiliary Electric	40	29	32	All required info provided; looks mostly good; Still proposing (small) lead-acid battery; Knife switch and HV shop power now provided. G+
A.9	Propulsion and Braking	80	61	64	Very good and detailed info provided. EMI control during design and manufacturing addressed well. G+
A.10	Trucks	40	30	31	Well proven truck, good detail and drawings provided. Potential vulnerability of motor/gearbox to side impact accidents somewhat addressed. G
A.11	Communication	40	29	34	Generally good equipment and detail provided. Now proposing LCD interior signs. Good info on wifi downloads included. E
A.12	Electronic Controls and Software	40	35	35	Very good network topology, excellent diagnostic system. E
A.13	Onboard Energy Storage System	80	56	65	Good and detailed info provided; generally good, performance adapted to meet spec. E
<b>C</b>	<b>Management Approach and Schedule</b>	<b>10</b>	<b>7.6</b>	<b>8.6</b>	
C.1	Management Approach & Org Charts	40	35	35	Very good management plan, excellent info on design control, including incorporation of safety in design; also excellent discussion on configuration control; Good org charts, including suppliers. E
C.2	Manufacturing & Test Plans	30	26	26	Excellent manufacturing plan, addresses material control, QA, design verification, design changes, purchasing, etc. E
C.3	Schedule and Schedule Assurance	30	15	25	24 months to delivery of first car, just meets spec. Good discussion on schedule assurance provided. E
<b>D &amp; D1</b>	<b>System Support Plan</b>	<b>10</b>	<b>7.9</b>	<b>8.4</b>	
D.1	System Support Plan	50	44	44	Excellent detail on all required aspects provided, including: QA & Inspection; Approach to Safety; On-site support; sample plans. E
D1.1	Onsite Inspection of Assembly Facility	50	35	40	Good description and process. G
<b>E</b>	<b>Qualifications, Experience, and References</b>	<b>10</b>	<b>7.8</b>	<b>7.8</b>	
E.1	Capacity & Past Performance	50	40	40	Excellent and detailed description of capacity. Some delays in past performance. G+
E.2	Staff Commitment	20	15	15	All key staff named, but not all with percentage commitment. G
E.3	References	30	23	23	Two references received at time of evaluation. Both good.
<b>F</b>	<b>Ability to conform to Buy America</b>	<b>10</b>	<b>8.3</b>	<b>8.3</b>	
F.1	Plan to meet component cost requirement	70	56	56	Plan to be >70%. Component list shows good understanding of requirements, has been through audits before. G+
F.2	Final Assembly Plan	30	27	27	Very good final assembly plan, meeting requirements. Has done it before many times. E+
	<b>Total</b>	<b>100</b>	<b>77.3</b>	<b>82.8</b>	

Score increased for BAFO

Score decreased for BAFO

## Evaluation of BAFOs - RFP No. TRN-3681

**Proposer:** Inekon

### Technical Proposal Evaluation Details

Sub-Part	Description	Maximum Score	Original Score	BAFO Score	Comments
<b>A &amp; B</b>	<b>Proposed Vehicle</b>	<b>60</b>	<b>38.1</b>	<b>35.8</b>	
A.1	General Description	80	48	48	Decent passenger capacity (111 @ AW2); ok car weight; no front door provided. A
A.2	System Requirements	80	56	52	Generally good performance and service proven history; Good performance simulation. Lack of service proven history for OESS. New issue related to AW4 weight. A
A.4	Carbody and Couplers	30	21	18	Generally good carshell and coupler; significant manufacturing issue of C-car was not addressed, though it has been corrected. AW4 weight increase not addressed. G-
A.5	Operator's Cab	30	22	22	Generally good layout and equipment, no changes from previous car. G
A.6	Doors and Bridgeplates	30	22	22	Generally good equipment proposed, no changes from previous car. G
A.7	HVAC and Lighting	30	19	20	HVAC same good equipment as previous car. Now providing LED lighting, but no detail/manufacture. G-
A.8	Auxiliary Electric	40	28	28	Generally good equipment provided, but did not address how existing issue with low voltage bus will be corrected. A+
A.9	Propulsion and Braking	80	56	42	New traction motor, brake disc, caliper proposed in BAFO. Late change without much detail. Complete detail of the original braking was there. A-
A.10	Trucks	40	24	21	New trucks proposed, reason not entirely clear. Not much detail provided. Also, no correction for existing issue with suspension proposed. A-
A.11	Communication	40	30	30	Generally good equipment proposed, no changes from previous car. G
A.12	Electronic Controls and Software	40	30	30	Good network topology, good diagnostic system. G
A.13	Onboard Energy Storage System	80	25	25	New and unproven equipment and supplier proposed; still fairly little detail provided; air cooled batteries cause for concern. BA-
<b>C</b>	<b>Management Approach and Schedule</b>	<b>10</b>	<b>5.1</b>	<b>5.1</b>	
C.1	Management Approach & Org Charts	40	20	20	Little info provided in management plan; weak org charts, PM appears to have little authority, suppliers are not included; A-
C.2	Manufacturing & Test Plans	30	15	15	Final assembly at new plant that has never done this before; test plan ok, but little detail provided. A-
C.3	Schedule and Schedule Assurance	30	16	16	Adequate schedule, 22 months to delivery of first car. Very little on schedule assurance. A-
<b>D &amp; D1</b>	<b>System Support Plan</b>	<b>10</b>	<b>5.2</b>	<b>5.2</b>	
D.1	System Support Plan	50	27	27	QA plan provided, but somewhat unclear/confusing. Very little info on incorporation of safety during design; no onsite support plan provided. A-
D1.1	Onsite Inspection of Assembly Facility	50	25	25	Very little info provided. A-
<b>E</b>	<b>Qualifications, Experience, and References</b>	<b>10</b>	<b>3.9</b>	<b>3.9</b>	
E.1	Capacity & Past Performance	50	15	15	Plenty of design capacity claimed, as Inekon has no other projects. Raises significant concerns on viability of company and staff retainage. Very little info provided on capacity of plants in Czech Republic or new assembly plant in US. A-
E.2	Staff Commitment	20	12	12	Key people named, most at 100% commitment. Concern re staff retainage. A
E.3	References	30	12	12	Two references received at time of evaluation. One ok, one negative.
<b>F</b>	<b>Ability to conform to Buy America</b>	<b>10</b>	<b>5.1</b>	<b>5.1</b>	
F.1	Plan to meet component cost requirement	70	30	30	Component plan shows that requirements are not properly understood by proposer, some required components are listed as subcomponents of truck. Carshell and other major items manufactured overseas. >70% claimed, but no plan provided how to get there. BA
F.2	Final Assembly Plan	30	21	21	Acceptable description of final assembly process provided. Plant has never done this before, some risk. G-
	<b>Total</b>	<b>100</b>	<b>57.4</b>	<b>55.1</b>	

Score increased for BAFO

Score decreased for BAFO



## Evaluation of Proposals - RFP No. TRN-3681

**Proposer:** \_\_\_\_\_

### Technical Proposal Evaluation Details

Sub-Part	Description	Maximum Score	Initial Score	Comments
<b>A &amp; B</b>	<b>Proposed Vehicle</b>	<b>60</b>		
A.1	General Description	80		
A.2	System Requirements	80		
A.4	Carbody and Couplers	30		
A.5	Operator's Cab	30		
A.6	Doors and Bridgeplates	30		
A.7	HVAC and Lighting	30		
A.8	Auxiliary Electric	40		
A.9	Propulsion and Braking	80		
A.10	Trucks	40		
A.11	Communication	40		
A.12	Electronic Controls and Software	40		
A.13	Onboard Energy Storage System	80		
<b>C</b>	<b>Management Approach and Schedule</b>	<b>10</b>		
C.1	Management Approach & Org Charts	40		
C.2	Manufacturing & Test Plans	30		
C.3	Schedule and Schedule Assurance	30		
<b>D &amp; D1</b>	<b>System Support Plan</b>	<b>10</b>		
D.1	System Support Plan	50		
D1.1	Onsite Inspection of Assembly Facility	50		
<b>E</b>	<b>Qualifications, Experience, and References</b>	<b>10</b>		
E.1	Capacity & Past Performance	50		
E.2	Staff Commitment	20		
E.3	References	30		
<b>F</b>	<b>Ability to conform to Buy America</b>	<b>10</b>		
F.1	Plan to meet component cost requirement	70		
F.2	Final Assembly Plan	30		